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## Chapter 10- Building Online Toolkits to Support the Development of Academic Skills and Digital Literacies

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# BUILDING ONLINE TOOLKITS TO SUPPORT THE DEVELOPMENT OF ACADEMIC SKILLS AND DIGITAL LITERACIES

Jenae Cohn

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## “How Do I Annotate a PDF?": Building Online Tool Kits to Support the Development of Academic Skills and Digital Literacies

Personal, environmental, and academic factors contribute to student persistence and retention in college environments in varying and, importantly, intersecting ways. As educators determine what supporting student success in a post-COVID-19 world looks like, it is important to consider how these factors become all the more complicated by the new challenges raised with ubiquitous remote or hybridized learning. The global shift to online learning has opened tremendous gaps in experiences that students might have in learning, working, living, and socializing online. Some students may lack access to laptop computers for learning, while others may not have sufficient broadband access to connect online from their homes. Students with disabilities may not have access to the same kinds of accommodations they receive on campus; other students may find themselves better served by a remote learning environment. It is clear that ubiquitous remote or hybridized learning amplifies inequities that likely existed before the COVID-19 pandemic while potentially revealing an even more diverse array of learning concerns that college educators may not have considered prior to this unprecedented historic moment.

Student experiences of using and engaging with technology are just as varied as students' prior academic experiences and skills that they bring with them to the college classroom. Resilient pedagogy invites higher educator instructors and staff to consider how we close the equity gaps in higher education while also adopting pedagogies that attend to the range of experiences they bring to academic spaces.

A key factor to student retention and persistence in online classes in the past has been students' prior exposure to academic skill development and the development of self-efficacy (Cochran et al., 2014; Shen et al., 2013; Lee & Choi, 2011). The more exposure students in online classes had to other academic experiences, particularly in higher education, the more successful they would be in online classes. While the conditions for

taking online and hybrid classes at the moment of this collection's writing look very different—many students will not have choices about taking their class in an online or face-to-face modality—we can safely assume that exposure to and development of academic skills can contribute to success. Yet it is worth noting that developing academic skills online can look different than developing academic skills in a face-to-face learning environment. While higher education instructors may be able to safely assume that students who have developed robust academic skill sets face-to-face could be positioned to develop effective academic skill sets online too, it's worth considering some critical differences in how students may access and engage with resources to help them engage in academic experiences. For example, students with ample exposure to techniques that rely upon access to libraries, print books, or face-to-face office hours or consultations may feel adrift in an online environment. While all these resources and experiences are accessible online, engaging in them is materially different than engaging with face-to-face resources. Finding and engaging with these resources in online environments requires developing new skills and digital literacies.

Even before the COVID-19 pandemic, university students recognized the differences in accessing key university resources in online and in-person spaces. Ample survey studies have been conducted to examine student preferences for comparing online and in-person university experiences, such as taking classes or visiting the library (Gierdowski et al., 2020; Mueller et al., 2017; Thill et al., 2016; Joo & Choi, 2015). But at this juncture, examining these preferences may not necessarily advance the goals of developing resilient pedagogy. While student preferences have value, past preferences cannot account for the current crisis and trauma-based conditions that may shape student learning experiences today. A valuable path now is to assess the affordances and limitations of working in these spaces rather than to judge or compare individual preferences. Considering what is possible in online environments and exposing students to those possibilities can work in favor of fostering resilient pedagogy rather than engaging in comparative exercises that, at best, are nostalgic, and at worst, undermine the tremendous potential that online learning has for reaching new students and meeting their needs in potentially compelling and expansive ways.

Resilient pedagogy refers to a pedagogy that is attentive to students' lived experiences. Given that students' lived experiences are happening online—partially, if not fully—we must consider how classroom pedagogies can integrate the development of academic skills into the curriculum. The scholarship of teaching and learning has long acknowledged the importance of explicitly weaving lessons about academic skills into higher-education curriculum, but the need is even more acute as students adapt to learning in a range of modalities and environments and on devices from mobile phones to old desktop computers (Smale & Regaldo, 2017; Jamieson, 2013; Hitch et al., 2012; Justice et al., 2009). When access to particular material resources or university spaces may be unavailable, we can offer creative solutions that can accommodate the range of student learning environments. While some academic skill development such as time management and understanding academic discourse communities may not necessarily change based on learning in an online or a face-to-face environment, we must acknowledge where gaps in skills might exist when students move to partially or fully online learning environments.

Learning how to read, research, and take notes online requires that students understand some basic differences between software applications, desktop applications, and websites. While many instructors and university administrators might assume that students understand what it means to complete these common learning activities because they are digital natives, students' understandings of how online infrastructures work cannot be generalized based solely on age (Jacobsen et al., 2019; Bennett & Maton, 2010). In a meta-analysis of studies comparing reading on print and reading on-screen, Delgado et al. (2018) found that, of 54 studies examining comprehension outcomes in paper and on-screen, there was a significant correlation between the age of the readers and their comprehension abilities on paper and on-screen (p. 34). However, it was not that younger students were more adept readers on-screen than older readers; on the contrary, younger readers tended to have poorer reading comprehension outcomes on-screen than older readers did (p. 34). While the meta-analysis from Delgado et. al might not account for the range of on-screen reading situations that current online students might encounter, we still cannot assume that college students of any age necessarily know how to use digital environments for effective learning.

In this chapter, I advocate for college educators and campus partners, like faculty developers and librarians, to develop *online tool kits*, or short and flexible online modules, that help orient students to available techniques, tools, and resources for developing academic skills in online or hybrid learning environments. Online tool kits are collections of links, resources, and tips that point students explicitly to resources that will help them develop core academic skills for engaging in an online or hybrid class environment. Many instructors already point students to core campus resources, like the library or a tutoring center, in their syllabus. But an online tool kit takes the concept of sharing campus resources one step further. In online tool kits, instructors include a focused and compact collection of tips and paired digital tool options for developing key academic skills that are directly relevant to core assignments or activities in a class.

Specifically, I offer reading, note-taking, and researching as three core academic skills that could be the focus for online learning tool kits because these three skills may be practiced in fundamentally different ways online than on paper or in person. While there may be other skills that are equally affected by an online learning environment, I have isolated these three skills because they apply to learning contexts and experiences applicable to a variety of academic disciplinary contexts. This chapter will give examples of what tool kits for reading, note-taking, and researching look like. These examples are designed as a starting point for readers to consider a small and simple way to support students in developing online academic literacies.

First, I briefly review the literature on retention in online class environments, exploring the ways digital literacy and exposure to online experiences has been correlated with success in online learning experiences in the past. I acknowledge that students' experiences with online learning in a post-COVID-19 world are fundamentally different from students' experiences with past online learning experiences. Namely, as Hodges et al. (2020) have argued, it is more accurate to describe ubiquitous online and hybrid instruction as "emergency remote instruction." Given that moves to online and hybridized learning environments happened

quickly with limited resources and at unprecedented scales, it is unfair to assume that past retention factors can be perfect predictors for future retention factors in online classes. That said, it remains valuable to examine the literature on contributing factors to student success to contextualize the conversation about academic skill development as a key component to students' abilities to succeed in online learning environments. A key part of this context includes a brief overview of the literature on understandings of students' digital literacies in higher education. Exposure to and experience with working in online environments is a common predictor of persistence and success with them.

The subsequent sections examine how explicit conversations about developing reading, note-taking, and researching skills can be built into online or hybrid class experiences. Each section includes a short overview of the common gaps that students have in their development of reading, note-taking skills, and researching skills, and then offers an example of student-facing language for acknowledging these gaps and suggesting solutions in the form of a tool kit that can model what providing student support for academic skill development might look like. To conclude, I consider how these tool kits can be integrated into online and hybrid classes and how different institutional stakeholders, from faculty to educational developers to technologists, can support students in the development of digital academic literacies to succeed in the online and hybridized spaces that may define higher-education classroom environments in the years to come.

We can narrow the equity gap across our students by making visible the processes and resources we use for academic literacy uptake. Resilient pedagogy means considering how lived experience shapes academic skill development, and part of what educators and higher-education institutions can do is create clear pathways for students to access, understand, and interact with digital learning materials relevant to the skills they most need to develop.

## Literature Review

To understand how we can enact resilient pedagogy in particular, or pedagogy that is responsive to students' lived experiences, it is worth acknowledging the conversations that have happened about retention in online higher-education classes. Over the past thirty years in higher education, enrollments in online education have increased, leading scholars to consider how and whether students' engagement in online learning impacts student retention and persistence. Lee and Choi (2011) conducted a meta-analysis of a decade's worth of scholarship on retention in online classes from 1999 to 2009, examining studies that compared factors that contributed to undergraduate students' persistence in online courses. After examining 35 studies, Lee and Choi found that a combination of students' previous academic and professional experiences and past grade performances most often contributed to retention outcomes, leading to the recommendation that these concerns could be mitigated by "identifying students' challenges and potential, developing high-quality courses, and providing advice and supportive service to relive students' emotional and personal difficulties" (p. 614). These recommendations are large, of course, and they have even bigger implications as

undergraduate student populations continue to diversify. As more women, students of color, returning students, working students, students with disabilities, and students with multilingual language backgrounds all grow to be increasingly large parts of the undergraduate college population, it is worth considering how universities might anticipate the challenges that historically marginalized populations of students face (Espinosa et. al, 2019).

While some studies of online education have compared how demographic differences between race, class, and gender impact retention in online classes, Öztok (2019) argues that online education scholars must consider “the cultural processes by which inequity is continuously created and maintained,” rather than focusing purely on the effects of demographic comparison (p. 2). Examining these processes means going beyond simply considering students’ racial and gender backgrounds but looking at the ways in which inequalities are systematically integrated into educational enterprises. Creating spaces for and access to the hidden curriculum of higher education, and online education in particular, may be one small component of tackling inequitable experiences in online learning.

A resilient pedagogy that acknowledges the development of academic skills online will inherently engage students in explicit conversation about digital literacy. Digital literacy refers to a broad range of competencies, fluencies, and experiences that have to do with someone’s ability to navigate digital spaces with functional and cultural knowledge. Belshaw (2014) defines eight holistic components of digital literacy that capture the fact that becoming digitally literate includes, but is not limited to, mere technical skill development. Belshaw contends that digital literacy is cultural, cognitive, constructive, communicative, confident, creative, critical, and civic (p. 2). Belshaw’s thinking suggests that in order to support student success in digital environments, educators must consider not just how to support students in accessing online environments, but in socializing and engaging with them in ways that reflect understanding of how digital environments operate. Jacobsen et. al (2019) described how higher-education institutions have supported students’ digital literacy development in the holistic ways that Belshaw describes. For example, diverse institutions, from two-year colleges to four-year universities, have offered courses, certificates, and workshops to support students’ digital literacy development. Yet, a holistic digital literacy curriculum takes time and ample resources to develop, so a gradual incorporation of digital literacy principles within individual classes may help to advance digital literacy goals as part of the teaching and learning enterprise.

No one magical or simple solution will make online learning work for all students. As the scholarship suggests, understanding how or what makes students successful online learners and/or uptakers of digital literacy is tremendously complex. Yet one thing is clear: the more possibilities for engaging in online spaces that become visible to students, the more students will be able to see themselves as digitally literate online learners. Individuals who identify as digitally literate have had opportunities to feel comfortable and fluent in online spaces. Similarly, to foster resiliency and student success in online spaces, educators can help students see where and how they can be part of an online classroom. In other words, as a component of resilient

pedagogy, instructors, faculty developers, and instructional designers can make transparent the choices that students have for engaging in their online coursework. Online tool kits can be one way of making them transparent.

The remaining sections of this chapter include language that instructors, instructional designers, faculty developers, or librarians could adopt and integrate into content-based courses to give students tool kits for accessing three different core academic skills: reading, note-taking, and researching. The language of these tool kits would need to be modified to accommodate different tools available on particular college campuses or resources available in a particular class, but they should provide usable templates for instructional contexts.

## Reading

Undergraduate student experiences with assigned reading tend to be characterized by a wide range of feelings that depend on the substance of what students are reading and the purposes of the reading task. Decades of research on reading compliance, or students' follow-through on completing a reading task, suggests that students do not complete reading assignments when they feel overwhelmed by the reading task, do not understand the content in the reading, or do not see the value in the reading assignment (Smale & Regaldo, 2017; Sharma et al., 2013; Carney et al., 2010; Brost & Bradley, 2006). Some reading compliance studies have found that students are more likely to complete a reading with an extrinsic motivational factor, such as a quiz or a concrete assignment, though the literature is split on whether these extrinsic motivational factors are the best way to foster student learning, even if they foster compliance (Hoeft, 2012; Lei et al., 2010).

These factors around compliance become all the more complicated when students' preferences for reading materials come into play. The literature suggests that, on the whole, undergraduate students from a variety of age groups and backgrounds tend to prefer reading from print for academic reading tasks (Mizrachi et al., 2018; Baron et al., 2017). Mizrachi et al. (2018) collected survey responses from 10,293 college and university students and found that 78% of surveyed students preferred completing academic tasks from printed materials rather than from on-screen (p. 10). While it is valuable for instructors to honor students' preferences and to offer solutions for students to read from print, if they think that print is best for their comprehension abilities, it is equally as valuable to guide students toward practicing academic reading in digital media too, so that students with limited material access can still engage in successful academic reading practices. Even for students who may prefer to read on paper, some may want to explore or consider opportunities for reading on-screen, especially so that they can still feel confident in completing their reading assignments even when they are not accessing it in their preferred media.

I will note that effective reading practices may differ across disciplinary contexts and types of reading or writing assignments. Instructors practicing resilient pedagogy may want to consider their purposes for assigning reading deeply, which may fundamentally shape the kinds of tools or recommendations offered to



support students in their reading success (for more on this topic, see Cohn, 2021). That said, an online tool kit on supporting some basic reading functionality, such as text annotation and reducing or mitigating screen fatigue for reading tasks, can support student learning regardless of the particular reading assignment or context. An online learning tool kit for reading gives students initial exposure to the fact that reading on-screen can be personalized for students based on their preferences for reading or the devices upon which they may be engaging in reading tasks (e.g., for reading off a laptop or reading off a mobile phone).

An online tool kit for promoting academic reading on-screen might look like the following:

*Reading On-Screen: Tips for Staying Focused and Tools for Keeping Track of Readings*

Reading for class on-screen can feel challenging. Here are some tips to help you stay focused and feel less distracted or fatigued when you read on-screen:

1. **Break your reading task into smaller chunks.** When you know there is a reading assignment to do, skim the reading on your phone or laptop to see how long the reading is. Then, consider how much of the reading you want to do in a single time period. Commit to reading the first one or two sections of the reading or a paragraph or two from the reading in one sitting. Then, take a break from the screen, rest your eyes, and return to the other chunks of the reading later. Note that you will need to plan ahead for this technique to work well, but it may save you from feeling like your eyes are getting tired and may help you focus on one piece at a time.
2. **Prioritize what you look for as you read.** To help you remember what you've read on-screen, you may want to prioritize in advance what you want to look for. Consider, for example, identifying three key interesting take-aways or two quotes that you could bring to a live discussion or into a written response assignment. The more that you can keep a clear goal in mind as you read, the more focused you can stay on the reading.
3. **Make your reading full screen.** If you are accessing a reading assignment from the learning management system, the text of the reading might appear really small or might be inside a window. Try to make the reading full screen within the learning management system or, if the option is available, download the reading from the learning management system or try to open the reading link in a new browser window. If you are reading on a mobile device, consider downloading the reading to your phone so that you can use a reading application (like the Adobe Reader mobile app, which is free to download).
4. **Customize how the text of the reading looks to you.** A benefit to reading on-screen is that you can modify the size and the spacing of the font on what you are reading! If



you are reading a PDF, you can use an application like Adobe Reader to zoom in on the text or change the font size. You can also adjust the line spacing between paragraphs if you want more space. If you don't have access to a PDF reader tool, you can also try copying and pasting the text of a PDF into a word processor so that you can modify the size, spacing, and perhaps even the font face or font color in a word processor of your choice. Similarly, if you are reading the text on a website, try zooming in and out to adjust the font size or look for a browser extension that will allow you to modify the space, sizing, or even the color of your text.

### **Free Tools for Reading On-Screen:**

- **Adobe Reader:** This is a free PDF reader app that works on a laptop and on a mobile phone. It allows you to customize your text and add annotations, like highlights and free-form notes, to your text.
- **PDFEscape:** If you are using a Chromebook or otherwise cannot download additional applications, this is a free PDF reader tool that allows you to annotate your text with highlights and free form notes. You can save your readings in the browser or download them as annotated files.

**Easy Reader:** This is a browser extension that works in Chrome and allows you to customize how long articles appear on your screen. This works on both the Chrome browser on a laptop and the Chrome app on a mobile phone.

## **Note-Taking**

Undergraduate students may take notes on a variety of documents for a university class context, from readings (as discussed in the section prior) to prerecorded video content to live lectures. In any learning modality, whether online or face-to-face, learning how to distill content knowledge down into individual notes is a skill that takes time, practice, and guidance to develop. In an online learning environment, options for note-taking may seem more opaque without the context of sitting in a dedicated classroom space. Further, in online learning environments, students may not be sure about their options for taking notes on a digital device while perhaps also watching or accessing material from the same device. Paper and pencil may be perfectly appropriate note-taking technologies for students in online classes to use, but exposure to a wider option and array of strategies for note-taking, from mobile devices to laptops and, yes, paper, may help

students make choices that are better aligned with how they wish to organize their thinking and access evidence of their learning.

Helping students understand the range of ways they might engage in note-taking can make the task of taking notes feel simultaneously more accessible and less overwhelming if students have access to an online tool kit that may expose them to some options for online note-taking practice. The purposes for student note-taking will differ depending on individual student interests, the class contexts, and the ways in which students receive or engage in content with their classes. However, some exposure to some general tools, principles, and practices within an online note-taking tool kit may support students in choosing a note-taking strategy that can work best for them.

An online tool kit for encouraging effective note-taking practice might look like the following:

*Note-Taking On-Screen: Tips for Keeping Track of Ideas From Lectures, Videos, and Readings*

Trying to keep track of all the ideas you're learning in class? Here are some tips that might help you feel less overwhelmed when trying to manage the information you're learning:

1. **Have one dedicated place for storing and keeping your notes or free-form ideas for your class.** Knowing that all of your notes and ideas for a class are in one place can help you stay organized when you are learning a bunch of new ideas for the first time. You can go low-tech and keep everything in one paper notebook or you could choose an app on your mobile phone or computer that will allow you to keep track of and store notes for your class. See tool suggestions below for some ideas for digital note-taking tools.
2. **Create different sections of your note-taking space prior to watching a lecture, video, or reading. Create separate sections for facts, questions, resources, and your own summary of the material.** Whatever media you use for taking notes, try to create different sections of your note-taking space so that you can distinguish between facts or key ideas you hear, questions you have, and resources that your instructor might mention. You can create these sections by drawing distinct columns on a sheet of paper or, when using a note-taking tool, using bolded fonts, section headers, or a table to distinguish between these sections. If watching a video, consider writing down the time-stamped moment in the video when you heard a particular fact or when you had a particular question. That way, you can easily return to the content in the video at a later moment. Similarly, if you are recording a fact from a reading or have a question about a

portion of the reading, record the page number (if applicable) so that you can find it again later.

3. **If taking notes on a mobile phone or laptop, try to store your notes to the cloud (i.e., online) rather than on your local device.** Saving your notes in an online place will allow you to access your notes easily again, regardless of what device you are using. That way, if you are switching between devices, you can find your notes again using the same application later.

#### **Tools for Note-Taking On-Screen:**

- **Evernote:** Evernote allows you to create online notebooks that you can sort by different topics to keep track of your class notes and ideas. You can use Evernote on both a computer and a mobile phone and add additional tags to filter through your notes more easily. You can also search across your notes to find certain key words or ideas.
- **Microsoft OneNote:** If your school has a license for Microsoft tools, Microsoft OneNote is a free note-taking tool where you can create digital notebooks with different sections and pages. OneNote is an application that can be used on a computer or mobile phone and that you can use both online and offline. When you use OneNote when you are connected to the internet, all of your notes will be saved to the cloud automatically.
- **Microsoft Word or Google Docs word processor:** If you want to stay simple, you can always use a word processing tool like Microsoft Word or Google Docs to take notes. Neither of these tools are designed for note-taking, but if you create clearly labeled folders for your class notes and organize your documents with clear section headings that help you keep track of your ideas, these tools can work well both on mobile devices and on computers.

## Researching

Undergraduate research skills are developed in a variety of university spaces, from the classroom to the lab and, of course, the library. While not all university instructors assign research projects as core assignments, students engage in research regardless of whether or not an instructor has asked them to. For example, students may activate research skills when they use a search engine to access a definition for a key word or concept. Undergraduates coming to college classes today have ample experience with using commercial search engines such as Google for finding news stories or solving a simple household problem (Head et al., 2019; American Press Institute, 2015). Yet undergraduates' experiences with more complex research activities, like

accessing university databases for finding academic articles or fact-checking popular sources are more varied. For example, Wineburg and McGrew (2019) discovered that undergraduate students lack *critical literacy skills* to discern between different kinds of reliable sources online, largely because of gaps in knowledge around assessing website credibility and information. Many undergraduate readers are misled by webpage design that makes content appear authoritative, for example, even if it is not. Some undergraduate students will also enter college classrooms with the understanding that particular domain names are more reliable than others; for example, many students learn in high school or early college environments that information on websites with “.org” or “.edu” domains are more reliable than websites on “.com” domains even though all domain names can be purchased by anyone, regardless of institutional affiliation or research-based rigor.

Librarians can offer deeper insight into developing information literacy, and so, an online tool kit for helping students understand some basic research skills and capacities should be no substitute for engagement with a local campus librarian. The kinds of research skills that instructors may want to teach their students will also vary largely depending on the nature of the research task and the discipline of the research task. That said, some basic principles for conducting research online may apply regardless of discipline and can provide some foundational entry knowledge to help students understand the difference between academic online research tasks and everyday online research tasks.

An online tool kit for encouraging effective on-screen research might look like the following:

### *Researching On-Screen: Tips for Managing and Interpreting Information Online*

Doing research for a college or university project may feel really overwhelming the first time you do it. Here are some tips that might help you navigate the information you find and help you pick some of the best possible sources for your project.

1. **Try out different sets of search terms.** It can be hard to find exactly what you need from an online research project by just using one set of search terms. If one set of search terms is giving you too many results, try adding in a more specific phrase or put a specific phrase in quotation marks (“”) to limit what the search engine is finding. Putting the word “and” between a set of search terms will also narrow down what you are finding. Alternatively, if a set of search terms is not giving you enough results, try putting the word “or” between a set of search terms; the word “or” will tell the search engine that you are interested in results that include one set of words or a different set of words.
2. **Do not assume a source is credible based on the domain name.** Websites that end

in “.com” do not always belong to businesses and websites that end in “.edu” do not always belong to schools. Explore the content of the website carefully, and if you are not sure if the content is credible, try searching laterally by Googling the name of the article you are reading to see who else has cited that website. Alternatively, try looking up the name of the website you are reading on Wikipedia to see if there are any overviews of what kind of content the website you are reading typically covers.

3. **Talk to a librarian!** Even if you are not using the library’s website to conduct your research, a campus librarian can help you make sense of what you are seeing online and can help you narrow down your particular sets of search terms or ideas to help you feel less overwhelmed. A librarian can also help you navigate the university search tools more carefully and get better results for what you are trying to find.

### **Free Tools for Researching On-Screen:**

- **Zotero:** This is a tool that allows you to keep track of the websites, articles, and books that you might be reading for your research project. In Zotero, you can save what you have been working on, put your notes in the same place as your readings, and save citation information.

**Pocket:** This is a bookmarking tool that creates a browser extension that allows you to click a button and save what you are reading. You can add tags or keywords that allow you to search through the readings that you have saved and find readings based on the categories you have saved for yourself.

## Conclusion

Online tool kits are a simple way for instructors, instructional designers, faculty developers, and other teaching and learning stakeholders to share a few simple strategies, tools, and approaches to developing academic skills and digital literacies in online and hybrid learning environments. The examples offered in this chapter are starting points, and institutions interested in systematically adopting the use of tool kits may find that instructors, librarians, technologists, and faculty developers make strong partners in adopting tool kits that would be locally applicable. The tool kits described here have sample language that would need to be modified to be applicable in particular institutional contexts, but they hopefully provide some framework to demonstrate the kinds of lessons that could be easily inserted into asynchronous online modules. Overviews

of the tool kits could also be narrated in prerecorded video overviews, particularly if instructors wanted to demonstrate the usage of particular tools or workflows.

If instructors are interested in creating tool kits for particular academic skills, I encourage them to consult with their campus librarians and technology teams to point students directly to existing tools or resources on their campuses. University staff are eager to support students in using tools for which their campuses may have purchased licenses or access to using and will be able to provide technical support to the campus community. For instructors who appreciate the concept of sharing a tool kit but who are not sure what to refer their students to, consulting with campus staff can help ensure that there is alignment between the academic skills they would like to develop and the resources that can be supported on their campus.

The development of students' digital literacies in online classes will emerge from continued practice and engagement, and students will come to online classes with varied prior experiences. When instructors can make transparent their own processes of learning about new tools, workflows, and ideas for improving academic engagement, the more students can see that their own development is a process too. The shift to ubiquitous remote instruction has been challenging for everyone in the university community, but by revealing some small ways that students can adapt to developing academic skills online, instructors and instructional support staff can help ease the transition and foster confident student engagement in online environments.

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